This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims

1.    (Previously Presented) A method for a network node connected to one or more neighboring nodes in a network to acquire link state information from one or more neighboring nodes, the method comprising:

transmitting a first message from the network node to a first neighboring node, the first message referencing dummy link state information that includes link state information not referenced in a link state database included in the first neighboring node;

receiving a second message from the first neighboring node, the second message referencing dummy link state information, the second message corresponding to an acknowledgement of receipt of the first message by the first neighboring node;

receiving one or more link state packets from the first neighboring node, the one or more link state packets corresponding to network link state information.


2.    (Previously Presented) The method of claim 1, wherein the network node ignores the second message.

3.    (Original) The method of claim 1, wherein the first and second messages are IS-IS messages.

4.    (Original) The method of claim 1, wherein the first message is a Complete Sequence Numbers Packet.

5.    (Original) The method of claim 1, wherein the second message is a Partial Sequence Numbers Packet.

6.    (Original) The method of claim 1, further comprising transmitting a third message from the network node to a second neighboring node, the third message referencing dummy link state information.

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7.      (Original) The method of claim 6, further comprising transmitting a fourth message from the network node to the first neighboring node, the fourth message containing no reference to dummy link state information and directing the first neighboring node to transmit link state information not referenced in the fourth message to the network node.

8.      (Original) The method of claim 1, further comprising receiving link state information and populating a link state database with the link state information.

9.      (Original) The method of claim 1, further comprising using the link state information to generate a routing table.

10.     (Currently Amended) The method of claim 1, wherein the dummy link state information references a dummy link state packet that references a non-existent network node.

11.     (Currently Amended) The method of claim 1, wherein the dummy link state information references a dummy link state packet that references an unused identifier of the network node.


12.     (Previously Presented) A method for a network node in a network to request link state information from one or more neighboring nodes, the neighboring nodes coupled with the network node, the method comprising:

        maintaining information identifying one or more neighboring nodes in persistent storage of the network node;

        restarting the routing control protocol of the network node, wherein restarting the routing control protocol clears a link state database;

        transmitting heartbeat messages from the network node to one or more neighboring nodes, the heartbeat messages containing information from persistent storage identifying the one or more neighboring node to indicate that the network node is alive;

        transmitting a first link state information request message from the network node to a first neighboring node, the first link state information request message referencing dummy link

state information that includes link state information not referenced in a link state database included in the first neighboring node; and

transmitting a second link state information request message from the network node to a second neighboring node, the second link state information request message referencing dummy link state information.

13.    (Original) The method of claim 12, further comprising receiving a partial link state information request message from the second neighboring node, the partial link state information request message referencing dummy link state information, wherein receipt of the partial link state information request message acknowledges that the second neighboring node received the second link state information request message.

14.    (Original) The method of claim 12, wherein transmitting the second link state information request message occurs after transmitting the first link state information request message.

15.    (Original) The method of claim 12, wherein the first message is a Hello message.

16.    (Original) The method of claim 12, wherein the second message is a Complete Sequence Numbers Packet.

17.    (Previously Presented) The method of claim 12, further comprising transmitting a third message from the network node to a second neighboring node, wherein the third message is a Partial Sequence Numbers Packet.

18.    (Original) The method of claim 12, further comprising generating a routing table with the link state packets from one or more neighboring nodes, wherein the routing table is generated when no link state packets have been received for a predetermined period of time.

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19.    (Currently Amended) A computer program product comprising a machine readable storage medium on which is provided program instructions for a network node connected to one or more neighboring nodes in a network to acquire link state information from one or more neighboring nodes, the computer program product comprising:

computer code for transmitting a first message from the network node to a first neighboring node, the first message referencing dummy link state information that includes link state information not referenced in a link state database included in the first neighboring node;

computer code for receiving a second message from the first neighboring node, the second message referencing dummy link state information, the second message corresponding to an acknowledgement of receipt of the first message by first the neighboring node;

computer code for receiving one or more link state packets from the first neighboring node, the one or more link state packets corresponding to link state information in the network.

20.    (Original) The computer program product of claim 19, wherein the network node ignores the second packet.

21.    (Original) The computer program product of claim 19, wherein the first and second messages are IS-IS messages.

22.    (Original) The computer program product of claim 19, wherein the first message is a Complete Sequence Numbers Packet.

23.    (Original) The computer program product of claim 19, wherein the second message is a Partial Sequence Numbers Packet.

24.    (Original) The computer program product of claim 19, further comprising transmitting a third message from the network node to a second neighboring node, the third message referencing dummy link state information.

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25.    (Original) The computer program product of claim 24, further comprising transmitting a fourth message from the network node to the first neighboring node, the fourth message containing no reference to dummy link state information and instructing the first neighboring node to transmit link state information not referenced in the fourth message to the network node.

26.    (Previously Presented) A network node connected to one or more neighboring nodes in a network, the network node comprising:

memory;

one or more processors coupled to memory, the one or more processors configured to transmit a first message from the network node to a first neighboring node, the first message referencing dummy link state information that includes link state information not referenced in a link state database included in the first neighboring node, and receive a second message from the first neighboring node, the second message referencing dummy link state information, the second message corresponding to an acknowledgement of receipt of the first message by the first neighboring node, the one or more processors further configured to receive one or more link state packets from the first neighboring node, the one or more link state packets corresponding to link state information in the network; and

an interface coupled with the one or more processors for transmitting and receiving the first and second messages and the link state packets.

27.    (Original) The network node of claim 26, the one or more processors further configured to ignore the second message.

28.    (Original) The network node of claim 26, wherein the first and second messages are IS-IS messages.

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29.    (Original) The network node of claim 26, wherein the first message is a Complete Sequence Numbers Packet.

30.    (Original) The network node of claim 26, wherein the second message is a Partial Sequence Numbers Packet.

31.    (Original) The network node of claim 26, the one or more processors further configured to transmit a third message from the network node to a second neighboring node, the third message referring to dummy link state information.

32.    (Original) The network node of claim 31, the one or more processors further configured to transmit a fourth message from the network node to the first neighboring node, the fourth message containing no reference to dummy link state information and instructing the first neighboring node to transmit link state information not referenced in the fourth message to the network node.

33.    (Original) The network node of claim 26, further comprising a link state database, wherein the received link state packets are used to populate a link state database.

34.    (Original) The network node of claim 33, wherein the link state database is used to generate a routing table.

35.    (Currently Amended) The network node of claim 26, wherein the dummy link state information references a dummy link state packet that references a non-existent network node.

36.    (Currently Amended) The network node of claim 26, wherein the dummy link state information references a dummy link state packet that references an unused identifier of the network node.


37.    (Previously Presented) A network node comprising an operating system which is operable to acquire link state information from a neighboring network node, the network node comprising:

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persistant storage for maintaining information associated with one or more neighboring nodes;

memory coupled with persistant storage; and

one or more processors coupled with memory, the one or more processors configured to transmit heartbeat messages from the network node to one or more neighboring nodes, the heartbeat messages containing information from persistent storage identifying the one ore more neighboring node to indicate that the network node is alive, a first link state information request message from the network node to a first neighboring node, the first link state information request message referencing dummy link state information that includes link state information not referenced in a link state database included in the first neighboring node, and a second link state information request message from the network node to a second neighboring node, the second link state information request message referencing dummy link state packet.

38.    (Original) The network node of claim 37, wherein the one or more processors are further configured to receiving a partial link state information request message from the second neighboring node, the partial link state information request message referencing dummy link state information, wherein receipt of the partial link state information request message acknowledges that the second neighboring node received the second link state information request message.

39.    (Original) The network node of claim 37, wherein transmitting the second link state information request message occurs after transmitting the first link state information request message.

40.    (Original) The network node of claim 37, wherein the first message is a Hello message.

41.    (Original) The network node of claim 37, wherein the second message is a Complete Sequence Numbers Packet.

42.    (Original) The network node of claim 37, wherein the third message is a Partial Sequence Numbers Packet.

43.    (Original) The network node of claim 37, wherein the one or more processors are further configured to generating a routing table with the link state packets from one or more neighboring nodes, wherein the routing table is generated when no link state packets have been received for a predetermined period of time.

44.    (Previously Presented) An apparatus operable to acquire link state information from one or more neighboring nodes, the apparatus comprising:

means for transmitting a first message from the network node to a first neighboring node, the first message referencing dummy link state information that includes link state information not referenced in a link state database included in the first neighboring node;

means for receiving a second message from the first neighboring node, the second message referencing dummy link state information, the second message corresponding to an acknowledgement of receipt of the first message by the first neighboring node; and

means for receiving one or more link state packets from the first neighboring node, the one or more link state packets corresponding to link state information in the network.

45.    (Original) The apparatus of claim 44, wherein the network node ignores the second message.

46.    (Original) The apparatus of claim 44, wherein the first and second messages are IS-IS messages.

47.    (Original) The apparatus of claim 44, wherein the first message is a Complete Sequence Numbers Packet.

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48. (Original) The apparatus of claim 44, wherein the second message is a Partial Sequence Numbers Packet.

49. (Original) The apparatus of claim 44, further comprising means for transmitting a third message from the network node to a second neighboring node, the third message referencing dummy link state information.

50. (Original) The apparatus of claim 49, further comprising means for transmitting a fourth message from the network node to the first neighboring node, the fourth message containing no reference to dummy link state information and instructing the first neighboring node to transmit link state information not referenced in the fourth message to the network node.